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<212> DNA
<213> Homo sapien

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<213> Homo sapien

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<212> PRT
<213> Homo sapiens

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Tyr Val Lys Tyr Lys Asn Phe Ser Tyr Leu His Cys Gln Trp Ala Ser

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Arg Leu Tyr Ser Ala Val Lys Glu Asp Glu Leu Met Glu Phe Ser Asp						
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Cys Arg Thr Ile Leu Val Tyr Cys Leu Asn His Tyr Lys Gly Asp Glu						
		885		890		895
Asn Ile Lys Ser Phe Ile Trp Asp Leu Ile Thr Pro Thr Ala Asp Gly						
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09440600 050404

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Leu	Glu 1190	Ala	Glu	Arg	Glu	Ala 1195	Ile	Ile	Ser	Glu	Lys 1200	Arg	Gln	Lys	
Trp	Thr 1205	Arg	Arg	Glu	Glu	Ala 1210	Asp	Phe	Tyr	Arg	Val 1215	Val	Ser	Thr	
Phe	Gly 1220	Val	Ile	Phe	Asp	Pro 1225	Val	Lys	Gln	Gln	Phe 1230	Asp	Trp	Asn	
Gln	Phe 1235	Arg	Ala	Phe	Ala	Arg 1240	Leu	Asp	Lys	Lys	Ser 1245	Asp	Glu	Ser	
Leu	Glu 1250	Lys	Tyr	Phe	Ser	Cys 1255	Phe	Val	Ala	Met	Cys 1260	Arg	Arg	Val	
Cys	Arg 1265	Met	Pro	Val	Lys	Pro 1270	Asp	Asp	Glu	Pro	Pro 1275	Asp	Leu	Ser	
Ser	Ile 1280	Ile	Glu	Pro	Ile	Thr 1285	Glu	Glu	Arg	Ala	Ser 1290	Arg	Thr	Leu	
Tyr	Arg 1295	Ile	Glu	Leu	Leu	Arg 1300	Lys	Ile	Arg	Glu	Gln 1305	Val	Leu	His	
His	Pro 1310	Gln	Leu	Gly	Glu	Arg 1315	Leu	Lys	Leu	Cys	Gln 1320	Pro	Ser	Leu	
Asp	Leu	Pro	Glu	Trp	Trp	Glu	Cys	Gly	Arg	His	Asp	Arg	Asp	Leu	

1800 P. [REDACTED] 11

1625	1630	1635
Arg Arg Arg Arg Arg Lys Ile Glu Ile Glu Ala Glu Arg Ala Ala		
1640	1645	1650
Lys Arg Arg Asn Leu Met Glu Met Val Ala Gln Leu Arg Glu Ser		
1655	1660	1665
Gln Val Val Ser Glu Asn Gly Gln Glu Lys Val Val Asp Leu Ser		
1670	1675	1680
Lys Ala Ser Arg Glu Ala Thr Ser Ser Thr Ser Asn Phe Ser Ser		
1685	1690	1695
Leu Ser Ser Lys Phe Ile Leu Pro Asn Val Ser Thr Pro Val Ser		
1700	1705	1710
Asp Ala Phe Lys Thr Gln Met Glu Leu Leu Gln Ala Gly Leu Ser		
1715	1720	1725
Arg Thr Pro Thr Arg His Leu Leu Asn Gly Ser Leu Val Asp Gly		
1730	1735	1740
Glu Pro Pro Met Lys Arg Arg Arg Gly Arg Arg Lys Asn Val Glu		
1745	1750	1755
Gly Leu Asp Leu Leu Phe Met Ser His Lys Arg Thr Ser Leu Ser		
1760	1765	1770
Ala Glu Asp Ala Glu Val Thr Lys Ala Phe Glu Glu Asp Ile Glu		
1775	1780	1785
Thr Pro Pro Thr Arg Asn Ile Pro Ser Pro Gly Gln Leu Asp Pro		
1790	1795	1800
Asp Thr Arg Ile Pro Val Ile Asn Leu Glu Asp Gly Thr Arg Leu		
1805	1810	1815
Val Gly Glu Asp Ala Pro Lys Asn Lys Asp Leu Val Glu Trp Leu		
1820	1825	1830
Lys Leu His Pro Thr Tyr Thr Val Asp Met Pro Ser Tyr Val Pro		
1835	1840	1845
Lys Asn Ala Asp Val Leu Phe Ser Ser Phe Gln Lys Pro Lys Gln		
1850	1855	1860
Lys Arg His Arg Cys Arg Asn Pro Asn Lys Leu Asp Ile Asn Thr		
1865	1870	1875
Leu Thr Gly Glu Glu Arg Val Pro Val Val Asn Lys Arg Asn Gly		
1880	1885	1890
Lys Lys Met Gly Gly Ala Met Ala Pro Pro Met Lys Asp Leu Pro		
1895	1900	1905
Arg Trp Leu Glu Glu Asn Pro Glu Phe Ala Val Ala Pro Asp Trp		
1910	1915	1920
Thr Asp Ile Val Lys Gln Ser Gly Phe Val Pro Glu Ser Met Phe		

1925 1930 1935

Asp Arg Leu Leu Thr Gly Pro Val Val Arg Gly Glu Gly Ala Ser
1940 1945 1950

Arg Arg Gly Arg Arg Pro Lys Ser Glu Ile Ala Arg Ala Ala
1955 1960 1965

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<223> x = any amino acid

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<400> 17

Arg Pro Ser Leu Pro Arg Ala Leu Pro Ala Ala Pro His Glu Arg Ser
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Pro Ala Arg Pro Gly Ser Val Gly Gly Gly Ala Pro Pro Met Leu Leu
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Gln Pro Ala Pro Cys Ala Pro Ser Ala Gly Phe Pro Arg Pro Leu Ala
35 40 45

Ala Pro Gly Ala Met His Leu Phe Ala Glu Gly His His Val His Gln
50 55 60

Asp Leu Arg Gly Arg Pro Ala Val Pro His Tyr Arg Arg Leu Ala Gln
65 70 75 80

Glu Val Leu Xaa Gly Leu Arg Arg His Leu Arg Arg Pro Trp Ser Ser
85 90 95

Pro Thr Ala Xaa Arg Ala Ser Pro Ala Ala Thr Ala Ser
100 105

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Glu Phe Leu Leu Ser Lys Ser Lys Glu Pro Thr Pro Gly Gly Leu Asn
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His Ser Leu Pro Gln His Pro Lys Cys Trp Gly Ala His His Ala Ser
20 25 30

Leu	Asp	Gln	Ser	Ser	Pro	Pro	Gln	Ser	Gly	Pro	Pro	Gly	Thr	Pro	Pro		
		35					40					45					
Ser	Tyr	Lys	Leu	Pro	Leu	Pro	Gly	Pro	Tyr	Asp	Ser	Arg	Asp	Asp	Phe		
	50					55					60						
Pro	Leu	Arg	Lys	Thr	Ala	Ser	Glu	Pro	Asn	Leu	Lys	Val	Arg	Ser	Arg		
65					70					75					80		
Leu	Lys	Gln	Lys	Val	Ala	Glu	Arg	Arg	Ser	Ser	Pro	Leu	Leu	Arg	Arg		
			85						90					95			
Lys	Asp	Gly	Thr	Val	Ile	Ser	Thr	Phe	Lys	Lys	Arg	Ala	Val	Glu	Ile		
			100					105					110				
Thr	Gly	Ala	Gly	Pro	Gly	Ala	Ser	Ser	Val	Cys	Asn	Ser	Ala	Pro	Gly		
		115					120					125					
Ser	Gly	Pro	Ser	Ser	Pro	Asn	Ser	Ser	His	Ser	Thr	Ile	Ala	Glu	Asn		
	130					135					140						
Gly	Phe	Thr	Gly	Ser	Val	Pro	Asn	Ile	Pro	Thr	Glu	Met	Leu	Pro	Gln		
145					150					155					160		
His	Arg	Ala	Leu	Pro	Leu	Asp	Ser	Ser	Pro	Asn	Gln	Phe	Ser	Leu	Tyr		
				165						170				175			
Thr	Ser	Pro	Ser	Leu	Pro	Asn	Ile	Ser	Leu	Gly	Leu	Gln	Ala	Thr	Val		
			180					185					190				
Thr	Val	Thr	Asn	Ser	His	Leu	Thr	Ala	Ser	Pro	Lys	Leu	Ser	Thr	Gln		
		195					200					205					
Gln	Glu	Ala	Glu	Arg	Gln	Ala	Leu	Gln	Ser	Leu	Arg	Gln	Gly	Gly	Thr		
	210					215					220						
Leu	Thr	Gly	Lys	Phe	Met	Ser	Thr	Ser	Ser	Ile	Pro	Gly	Cys	Leu	Leu		
225					230					235					240		
Gly	Val	Ala	Leu	Glu	Gly	Asp	Gly	Ser	Pro	His	Gly	His	Ala	Ser	Leu		
			245						250					255			
Leu	Gln	His	Val	Leu	Leu	Leu	Glu	Gln	Ala	Arg	Gln	Gln	Ser	Thr	Leu		
			260					265					270				
Ile	Ala	Val	Pro	Leu	His	Gly	Gln	Ser	Pro	Leu	Val	Thr	Gly	Glu	Arg		
		275					280					285					
Val	Ala	Thr	Ser	Met	Arg	Thr	Val	Gly	Lys	Leu	Pro	Arg	His	Arg	Pro		
	290					295					300						
Leu	Ser	Arg	Thr	Gln	Ser	Ser	Pro	Leu	Pro	Gln	Ser	Pro	Gln	Ala	Leu		
305					310					315					320		
Gln	Gln	Leu	Val	Met	Gln	Gln	Gln	His	Gln	Gln	Phe	Leu	Glu	Lys	Gln		
				325					330					335			
Lys	Gln	Gln	Gln	Leu	Gln	Leu	Gly	Lys	Ile	Leu	Thr	Lys	Thr	Gly	Glu		
			340					345					350				

[illegible]

Val Gly Lys Val Leu Ile Val Asp Trp Asp Ile His His Gly Asn Gly
675 680 685

Thr Gln Gln Ala Phe Tyr Asn Asp Pro Ser Val Leu Tyr Ile Ser Leu
690 695 700

His Arg Tyr Asp Asn Gly Asn Phe Phe Pro Gly Ser Gly Ala Pro Glu
705 710 715 720

Glu Val Gly Gly Gly Pro Gly Val Gly Tyr Asn Val Asn Val Ala Trp
725 730 735

Thr Gly Gly Val Asp Pro Pro Ile Gly Asp Val Glu Tyr Leu Thr Ala
740 745 750

Phe Arg Thr Val Val Met Pro Ile Ala His Glu Phe Ser Pro Asp Val
755 760 765

Val Leu Val Ser Ala Gly Phe Asp Ala Val Glu Gly His Leu Ser Pro
770 775 780

Leu Gly Gly Tyr Ser Val Thr Ala Arg Cys Phe Gly His Leu Thr Arg
785 790 795 800

Gln Leu Met Thr Leu Ala Gly Gly Arg Val Val Leu Ala Leu Glu Gly
805 810 815

Gly His Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ser
820 825 830

Ala Leu Leu Ser Val Lys Leu Gln Pro Leu Asp Glu Ala Val Leu Gln
835 840 845

Gln Lys Pro Asn Ile Asn Ala Val Ala Thr Leu Glu Lys Val Ile Glu
850 855 860

Ile Gln Ser Lys His Trp Ser Cys Val Gln Lys Phe Ala Ala Gly Leu
865 870 875 880

Gly Arg Ser Leu Arg Gly Ala Gln Ala Gly Glu Thr Glu Glu Ala Glu
885 890 895

Met

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<212> PRT
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<400> 19

Met Phe Asp Tyr Met Asp Cys Glu Leu Lys Leu Ser Glu Ser Val Phe
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Arg Gln Leu Asn Thr Ala Ile Ala Val Ser Gln Met Ser Ser Gly Gln
20 25 30

Cys Arg Leu Ala Pro Leu Ile Gln Val Ile Gln Asp Cys Ser His Leu

11

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Ile	Lys	Ile	Gln	Arg	Ser	Asn	Gly	Leu	Ile	His	Ser	Ala	Asn	Val	Arg
			20					25					30		
Thr	Val	Asn	Leu	Glu	Lys	Ser	Cys	Val	Ser	Val	Glu	Trp	Ala	Glu	Gly
		35					40					45			
Gly	Ala	Thr	Lys	Gly	Lys	Glu	Ile	Asp	Phe	Asp	Asp	Val	Ala	Ala	Ile
	50					55				60					

Asn 65	Pro	Glu	Leu	Leu	Gln 70	Leu	Leu	Pro	Leu	His 75	Pro	Lys	Asp	Asn	Leu 80
Pro	Leu	Gln	Glu	Asn 85	Val	Thr	Ile	Gln	Lys 90	Gln	Lys	Arg	Arg	Ser 95	Val
Asn	Ser	Lys	Ile 100	Pro	Ala	Pro	Lys	Glu 105	Ser	Leu	Arg	Ser	Arg	Ser	Thr
Arg	Met	Ser 115	Thr	Val	Ser	Glu	Leu 120	Arg	Ile	Thr	Ala	Gln 125	Glu	Asn	Asp
Met	Glu 130	Val	Glu	Leu	Pro	Ala 135	Ala	Ala	Asn	Ser	Arg 140	Lys	Gln	Phe	Ser
Val 145	Pro	Pro	Ala	Pro	Thr 150	Arg	Pro	Ser	Cys	Pro 155	Ala	Val	Ala	Glu	Ile 160
Pro	Leu	Arg	Met 165	Val	Ser	Glu	Glu	Met	Glu 170	Glu	Gln	Val	His	Ser 175	Ile
Arg	Gly	Ser	Ser 180	Ser	Ala	Asn	Pro	Val 185	Asn	Ser	Val	Arg	Arg	Lys	Ser
Cys	Leu 195	Val	Lys	Glu	Val	Glu	Lys 200	Met	Lys	Asn	Lys	Arg 205	Glu	Glu	Lys
Lys	Ala 210	Gln	Asn	Ser	Glu	Met 215	Arg	Met	Lys	Arg	Ala 220	Gln	Glu	Tyr	Asp
Ser 225	Ser	Phe	Pro	Asn	Trp 230	Glu	Phe	Ala	Arg	Met 235	Ile	Lys	Glu	Phe	Arg 240
Ala	Thr	Leu	Glu	Cys 245	His	Pro	Leu	Thr	Met 250	Thr	Asp	Pro	Ile	Glu 255	Glu
His	Arg	Ile	Cys 260	Val	Cys	Val	Arg	Lys 265	Arg	Pro	Leu	Asn	Lys	Gln 270	Glu
Leu	Ala 275	Lys	Lys	Glu	Ile	Asp	Val 280	Ile	Ser	Ile	Pro	Ser 285	Lys	Cys	Leu
Leu 290	Leu	Val	His	Glu	Pro	Lys 295	Leu	Lys	Val	Asp	Leu	Thr 300	Lys	Tyr	Leu
Glu 305	Asn	Gln	Ala	Phe	Cys 310	Phe	Asp	Phe	Ala	Phe 315	Asp	Glu	Thr	Ala	Ser 320
Asn	Glu	Val	Val	Tyr 325	Arg	Phe	Thr	Ala	Arg 330	Pro	Leu	Val	Gln	Thr 335	Ile
Phe	Glu	Gly	Gly 340	Lys	Ala	Thr	Cys	Phe 345	Ala	Tyr	Gly	Gln	Thr 350	Gly	Ser
Gly	Lys	Thr 355	His	Thr	Met	Gly	Gly 360	Asp	Leu	Ser	Gly	Lys 365	Ala	Gln	Asn
Ala 370	Ser	Lys	Gly	Ile	Tyr 375	Ala	Met	Ala	Ser	Arg	Asp 380	Val	Phe	Leu	Leu

Lys	Asn	Gln	Pro	Cys	Tyr	Arg	Lys	Leu	Gly	Leu	Glu	Val	Tyr	Val	Thr
385					390					395					400
Phe	Phe	Glu	Ile	Tyr	Asn	Gly	Lys	Leu	Phe	Asp	Leu	Leu	Asn	Lys	Lys
				405					410					415	
Ala	Lys	Leu	Arg	Val	Leu	Glu	Asp	Gly	Lys	Gln	Gln	Val	Gln	Val	Val
			420					425					430		
Gly	Leu	Gln	Glu	His	Leu	Val	Asn	Ser	Ala	Asp	Asp	Val	Ile	Lys	Met
		435					440					445			
Leu	Asp	Met	Gly	Ser	Ala	Cys	Arg	Thr	Ser	Gly	Gln	Thr	Phe	Ala	Asn
	450					455					460				
Ser	Asn	Ser	Ser	Arg	Ser	His	Ala	Cys	Phe	Gln	Ile	Ile	Leu	Arg	Ala
465					470					475					480
Lys	Gly	Arg	Met	His	Gly	Lys	Phe	Ser	Leu	Val	Asp	Leu	Ala	Gly	Asn
				485					490					495	
Glu	Arg	Gly	Ala	Asp	Thr	Ser	Ser	Ala	Asp	Arg	Gln	Thr	Arg	Met	Glu
			500					505					510		
Gly	Ala	Glu	Ile	Asn	Lys	Ser	Leu	Leu	Ala	Leu	Lys	Glu	Cys	Ile	Arg
		515					520					525			
Ala	Leu	Gly	Gln	Asn	Lys	Ala	His	Thr	Pro	Phe	Arg	Glu	Ser	Lys	Leu
	530					535					540				
Thr	Gln	Val	Leu	Arg	Asp	Ser	Phe	Ile	Gly	Glu	Asn	Ser	Arg	Thr	Cys
545					550					555					560
Met	Ile	Ala	Thr	Ile	Ser	Pro	Gly	Ile	Ser	Ser	Cys	Glu	Tyr	Thr	Leu
				565					570					575	
Asn	Thr	Leu	Arg	Tyr	Ala	Asp	Arg	Val	Lys	Glu	Leu	Ser	Pro	His	Ser
			580					585					590		
Gly	Pro	Ser	Gly	Glu	Gln	Leu	Ile	Gln	Met	Glu	Thr	Glu	Glu	Met	Glu
		595					600					605			
Ala	Cys	Ser	Asn	Gly	Ala	Leu	Ile	Pro	Gly	Asn	Leu	Ser	Lys	Glu	Glu
	610					615					620				
Glu	Glu	Leu	Ser	Ser	Gln	Met	Ser	Ser	Phe	Asn	Glu	Ala	Met	Thr	Gln
625					630					635					640
Ile	Arg	Glu	Leu	Glu	Glu	Lys	Ala	Met	Glu	Glu	Leu	Lys	Glu	Ile	Ile
				645					650					655	
Gln	Gln	Gly	Pro	Asp	Trp	Leu	Glu	Leu	Ser	Glu	Met	Thr	Glu	Gln	Pro
			660					665					670		
Asp	Tyr	Asp	Leu	Glu	Thr	Phe	Val	Asn	Lys	Ala	Glu	Ser	Ala	Leu	Ala
		675					680					685			
Gln	Gln	Ala	Lys	His	Phe	Ser	Ala	Leu	Arg	Asp	Val	Ile	Lys	Ala	Leu
						695					700				

Leu Asn Trp Tyr Asn Pro Glu Lys Lys Met Ile Arg Ala Tyr Ala Thr
245 250 255

Val	Ile	Asp	Gly	Pro	Glu	Tyr	Phe	Trp	Cys	Gln	Phe	Ala	Asp	Thr	Glu	260	265	270
Lys	Leu	Gln	Cys	Leu	Glu	Val	Glu	Val	Gln	Thr	Ala	Gly	Glu	Gln	Val	275	280	285
Ala	Asp	Arg	Arg	Asn	Cys	Ile	Pro	Cys	Pro	Tyr	Ile	Gly	Asp	Pro	Cys	290	295	300
Ile	Val	Arg	Tyr	Arg	Glu	Asp	Gly	His	Tyr	Tyr	Arg	Ala	Leu	Ile	Thr	305	310	315
Asn	Ile	Cys	Glu	Asp	Tyr	Leu	Val	Ser	Val	Arg	Leu	Val	Asp	Phe	Gly	325	330	335
Asn	Ile	Glu	Asp	Cys	Val	Asp	Pro	Lys	Ala	Leu	Trp	Ala	Ile	Pro	Ser	340	345	350
Glu	Leu	Leu	Ser	Val	Pro	Met	Gln	Ala	Phe	Pro	Cys	Cys	Leu	Ser	Gly	355	360	365
Phe	Asn	Ile	Ser	Glu	Gly	Leu	Cys	Ser	Gln	Glu	Gly	Asn	Asp	Tyr	Phe	370	375	380
Tyr	Glu	Ile	Ile	Thr	Glu	Asp	Val	Leu	Glu	Ile	Thr	Ile	Leu	Glu	Ile	385	390	395
Arg	Arg	Asp	Val	Cys	Asp	Ile	Pro	Leu	Ala	Ile	Val	Asp	Leu	Lys	Ser	405	410	415
Lys	Gly	Lys	Ser	Ile	Asn	Glu	Lys	Met	Glu	Lys	Tyr	Ser	Lys	Thr	Gly	420	425	430
Ile	Lys	Ser	Ala	Leu	Pro	Tyr	Glu	Asn	Ile	Asp	Ser	Glu	Ile	Lys	Gln	435	440	445
Thr	Leu	Gly	Ser	Tyr	Asn	Leu	Asp	Val	Gly	Leu	Lys	Lys	Leu	Ser	Asn	450	455	460
Lys	Ala	Val	Gln	Asn	Lys	Ile	Tyr	Met	Glu	Gln	Gln	Thr	Asp	Glu	Leu	465	470	475
Ala	Glu	Ile	Thr	Glu	Lys	Asp	Val	Asn	Ile	Ile	Gly	Thr	Lys	Pro	Ser	485	490	495
Asn	Phe	Arg	Asp	Pro	Lys	Thr	Asp	Asn	Ile	Cys	Glu	Gly	Phe	Glu	Asn	500	505	510
Pro	Cys	Lys	Asp	Lys	Ile	Asp	Thr	Glu	Glu	Leu	Glu	Gly	Glu	Leu	Glu	515	520	525
Cys	His	Leu	Val	Asp	Lys	Ala	Glu	Phe	Asp	Asp	Lys	Tyr	Leu	Ile	Thr	530	535	540
Gly	Phe	Asn	Thr	Leu	Leu	Pro	His	Ala	Asn	Glu	Thr	Lys	Glu	Ile	Leu	545	550	555
Glu	Leu	Asn	Ser	Leu	Glu	Val	Pro	Leu	Ser	Pro	Asp	Asp	Glu	Ser	Lys	565	570	575

104050-203630

Asn Lys Ser Gln Lys Leu Leu Lys Lys Leu Met Ser Gly Val Glu Asn

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Ser	Gly	Lys	Val	Asp	Ile	Ser	Thr	Lys	Asp	Leu	Leu	Pro	His	Gln	Glu	
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Leu	Arg	Ile	Lys	Ser	Gly	Leu	Glu	Lys	Ala	Ile	Lys	His	Lys	Asp	Lys	
130					135					140						
Leu	Leu	Glu	Phe	Asp	Arg	Thr	Ser	Ile	Arg	Arg	Thr	Gln	Val	Ile	Asp	
145					150					155					160	
Asp	Glu	Ser	Asp	Tyr	Phe	Ala	Ser	Asp	Ser	Asn	Gln	Trp	Leu	Ser	Lys	
165					170					175						
Leu	Glu	Arg	Glu	Thr	Leu	Gln	Lys	Arg	Glu	Glu	Glu	Leu	Arg	Glu	Leu	
180					185					190						
Arg	His	Ala	Ser	Arg	Leu	Ser	Lys	Lys	Val	Thr	Ile	Asp	Phe	Ala	Gly	
195					200					205						
Arg	Lys	Ile	Leu	Glu	Glu	Asn	Ser	Leu	Ala	Glu	Tyr	His	Ser	Arg		
210					215					220						
Leu	Asp	Glu	Thr	Ile	Gln	Ala	Ile	Ala	Asn	Gly	Thr	Leu	Asn	Gln	Pro	
225					230					235					240	
Leu	Thr	Lys	Leu	Asp	Arg	Ser	Ser	Glu	Glu	Pro	Leu	Gly	Val	Leu	Val	
245					250					255						
Asn	Pro	Asn	Met	Tyr	Gln	Ser	Pro	Pro	Gln	Trp	Leu	Thr	Thr	Gln	Val	
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Asn	Gln	Asn	Lys	Gly	Lys	Pro	Asp	Leu	Asn	Thr	Thr	Leu	Pro	Ile	Arg	
20					25					30						
Gln	Thr	Ala	Ser	Ile	Phe	Lys	Gln	Pro	Val	Thr	Lys	Val	Thr	Asn	His	
35					40					45						
Pro	Ser	Asn	Lys	Val	Lys	Ser	Asp	Pro	Gln	Arg	Met	Asn	Glu	Gln	Pro	
50					55					60						
Arg	Gln	Leu	Phe	Trp	Glu	Lys	Arg	Leu	Gln	Gly	Leu	Ser	Ala	Ser	Asp	
65					70					75					80	
Val	Thr	Glu	Gln	Ile	Ile	Lys	Thr	Met	Glu	Leu	Pro	Lys	Gly	Leu	Gln	
85					90					95						

100 105 110

Gly Val Gly Pro Gly Ser Asn Asp Glu Thr Leu Leu Ser Ala Val Ala
100 105 110

Ser Ala Leu His Thr Ser Ser Ala Pro Ile Thr Gly Gln Val Ser Ala
115 120 125

Ala Val Glu Lys Asn Pro Ala Val Trp Leu Asn Thr Ser Gln Pro Leu
130 135 140

Cys Lys Ala Phe Ile Val Thr Asp Glu Asp Ile Arg Lys Gln Glu Glu
145 150 155 160

Arg Val Gln Gln Val Arg Lys Lys Leu Glu Glu Ala Leu Met Ala Asp
165 170 175

Ile Leu Ser Arg Ala Ala Asp Thr Glu Glu Met Asp Ile Glu Met Asp
180 185 190

Ser Gly Asp Glu Ala
195

<210> 24

<211> 353

<212> PRT

<213> Homo sapiens

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<222> (76) .. (76)

<223> X = any amino acid

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Glu Thr Phe Ser Asp Leu Trp Lys Leu Leu Pro Glu Asn Asn Val Leu
20 25 30

Ser Pro Leu Pro Ser Gln Ala Met Asp Asp Leu Met Leu Ser Pro Asp
35 40 45

Asp Ile Glu Gln Trp Phe Thr Glu Asp Pro Gly Pro Asp Glu Ala Pro
50 55 60

Arg Met Pro Glu Ala Ala Pro Pro Val Ala Pro Xaa Thr Ser Ser Ser
65 70 75 80

Tyr Thr Gly Gly Pro Cys Thr Ser Pro Leu Leu Ala Pro Val Ile Phe
85 90 95

Val Pro Ser Gln Lys Thr Tyr Gln Gly Ser Tyr Gly Phe Arg Leu Gly
100 105 110

Phe Leu His Ser Gly Thr Ala Lys Ser Val Thr Cys Thr Tyr Ser Pro
115 120 125

Ala Leu Asn Lys Met Phe Cys Gln Leu Ala Lys Thr Cys Pro Val Gln
130 135 140

104050:20564860

Ala

<400> 25

Val Arg Ser Leu Glu Thr Glu Asn Ala Gly Leu Arg Leu Arg Ile Thr

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					70					75					80
Tyr	Glu	Ala	Glu	Leu	Gly	Asp	Ala	Arg	Lys	Thr	Leu	Asp	Ser	Val	Ala
				85					90					95	
Lys	Glu	Arg	Ala	Arg	Leu	Gln	Leu	Glu	Leu	Ser	Lys	Val	Arg	Glu	Glu
			100					105					110		
Phe	Lys	Glu	Leu	Lys	Ala	Arg	Asn	Thr	Lys	Lys	Glu	Gly	Asp	Leu	Ile
		115					120					125			
Ala	Ala	Gln	Ala	Arg	Leu	Lys	Asp	Leu	Glu	Ala	Leu	Leu	Asn	Ser	Lys
		130				135					140				
Glu	Ala	Ala	Leu	Ser	Thr	Ala	Leu	Ser	Glu	Lys	Arg	Thr	Leu	Glu	Gly
145					150					155					160
Glu	Leu	His	Asp	Leu	Arg	Gly	Gln	Val	Ala	Lys	Leu	Glu	Ala	Ala	Leu
				165					170					175	
Gly	Glu	Ala	Lys	Lys	Gln	Leu	Gln	Asp	Glu	Met	Leu	Arg	Arg	Val	Asp
			180					185					190		
Ala	Glu	Asn	Arg	Leu	Gln	Thr	Met	Lys	Glu	Glu	Leu	Asp	Phe	Gln	Lys
		195					200					205			
Asn	Ile	Tyr	Ser	Glu	Glu	Leu	Arg	Glu	Thr	Lys	Arg	Arg	His	Glu	Thr
	210					215					220				
Arg	Leu	Val	Glu	Ile	Asp	Asn	Gly	Lys	Gln	Arg	Glu	Phe	Glu	Ser	Arg
225					230					235					240
Leu	Ala	Asp	Ala	Leu	Gln	Glu	Leu	Arg	Ala	Gln	His	Glu	Asp	Gln	Val
				245					250					255	
Glu	Gln	Tyr	Lys	Lys	Glu	Leu	Glu	Lys	Thr	Tyr	Ser	Ala	Lys	Leu	Asp
			260					265					270		
Asn	Ala	Arg	Gln	Ser	Ala	Glu	Arg	Asn	Ser	Asn	Leu	Val	Gly	Ala	Ala
		275					280					285			
His	Glu	Glu	Leu	Gln	Gln	Ser	Arg	Ile	Arg	Ile	Asp	Ser	Leu	Ser	Ala
	290					295					300				
Gln	Leu	Ser	Gln	Leu	Gln	Lys	Gln	Leu	Ala	Ala	Lys	Glu	Ala	Lys	Leu
305					310					315					320
Arg	Asp	Leu	Glu	Asp	Ser	Leu	Ala	Arg	Glu	Arg	Asp	Thr	Ser	Arg	Arg
				325					330					335	
Leu	Leu	Ala	Glu	Lys	Glu	Arg	Glu	Met	Ala	Glu	Met	Arg	Ala	Arg	Met
			340				345						350		
Gln	Gln														

LIFE & DEATH

Gly	Asp	Val	Glu	Arg	Val	Lys	Arg	Leu	Val	Thr	Pro	Glu	Lys	Val	Asn
			100						105			110			
Ser	Arg	Asp	Thr	Ala	Gly	Arg	Lys	Ser	Thr	Pro	Leu	His	Phe	Ala	Ala
			115			.	120				125				
Gly	Phe	Gly	Arg	Lys	Asp	Val	Val	Glu	Tyr	Leu	Leu	Gln	Asn	Gly	Ala
			130			135						140			
Asn	Val	Gln	Ala	Arg	Asp	Asp	Gly	Gly	Leu	Ile	Pro	Leu	His	Asn	Ala
145					150					155		160			
Cys	Ser	Phe	Gly	His	Ala	Glu	Val	Val	Asn	Leu	Leu	Leu	Arg	His	Gly
				165					170		175				
Ala	Asp	Pro	Asn	Ala	Arg	Asp	Asn	Trp	Asn	Tyr	Thr	Pro	Leu	His	Glu
			180						185		190				
Ala	Ala	Ile	Lys	Gly	Lys	Ile	Asp	Val	Cys	Ile	Val	Leu	Leu	Gln	His
			195			200						205			
Gly	Ala	Glu	Pro	Thr	Ile	Arg	Asn	Thr	Asp	Gly	Arg	Thr	Ala	Leu	Asp
			210			215						220			
Leu	Ala	Asp	Pro	Ser	Ala	Lys	Ala	Val	Leu	Thr	Gly	Glu	Tyr	Lys	Lys
225					230					235		240			
Asp	Glu	Leu	Leu	Glu	Ser	Ala	Arg	Ser	Gly	Asn	Glu	Glu	Lys	Met	Met
				245					250		255				
Ala	Leu	Leu	Thr	Pro	Leu	Asn	Val	Asn	Cys	His	Ala	Ser	Asp	Gly	Arg
			260			265						270			
Lys	Ser	Thr	Pro	Leu	His	Leu	Ala	Ala	Gly	Tyr	Asn	Arg	Val	Lys	Ile
			275			280						285			
Val	Gln	Leu	Leu	Leu	Gln	His	Gly	Ala	Asp	Val	His	Ala	Lys	Asp	Lys
			290			295						300			
Gly	Asp	Leu	Val	Pro	Leu	His	Asn	Ala	Cys	Ser	Tyr	Gly	His	Tyr	Glu
305					310					315		320			
Val	Thr	Glu	Leu	Leu	Val	Lys	His	Gly	Ala	Cys	Val	Asn	Ala	Met	Asp
			325						330		335				
Leu	Trp	Gln	Phe	Thr	Pro	Leu	His	Glu	Ala	Ala	Ser	Lys	Asn	Arg	Val
			340						345		350				
Glu	Val	Cys	Ser	Leu	Leu	Leu	Ser	Tyr	Gly	Ala	Asp	Pro	Thr	Leu	Leu
			355			360						365			
Asn	Cys	His	Asn	Lys	Ser	Ala	Ile	Asp	Leu	Ala	Pro	Thr	Pro	Gln	Leu
			370			375						380			
Lys	Glu	Arg	Leu	Ala	Tyr	Glu	Phe	Lys	Gly	His	Ser	Leu	Leu	Gln	Ala
			385			390			395			400			
Ala	Arg	Glu	Ala	Asp	Val	Thr	Arg	Ile	Lys	Lys	His	Leu	Ser	Leu	Glu
			405						410		415				

Met	Val	Asn	Phe	Lys	His	Pro	Gln	Thr	His	Glu	Thr	Ala	Leu	His	Cys	420	425	430
Ala	Ala	Ala	Ser	Pro	Tyr	Pro	Lys	Arg	Lys	Gln	Ile	Cys	Glu	Leu	Leu	435	440	445
Leu	Arg	Lys	Gly	Ala	Asn	Ile	Asn	Glu	Lys	Thr	Lys	Glu	Phe	Leu	Thr	450	455	460
Pro	Leu	His	Val	Ala	Ser	Glu	Lys	Ala	His	Asn	Asp	Val	Val	Glu	Val	465	470	475
Val	Val	Lys	His	Glu	Ala	Lys	Val	Asn	Ala	Leu	Asp	Asn	Leu	Gly	Gln	485	490	495
Thr	Ser	Leu	His	Arg	Ala	Ala	Tyr	Cys	Gly	His	Leu	Gln	Thr	Cys	Arg	500	505	510
Leu	Leu	Leu	Ser	Tyr	Gly	Cys	Asp	Pro	Asn	Ile	Ile	Ser	Leu	Gln	Gly	515	520	525
Phe	Thr	Ala	Leu	Gln	Met	Gly	Asn	Glu	Asn	Val	Gln	Gln	Leu	Leu	Gln	530	535	540
Glu	Gly	Ile	Ser	Leu	Gly	Asn	Ser	Glu	Ala	Asp	Arg	Gln	Leu	Leu	Glu	545	550	555
Ala	Ala	Lys	Ala	Gly	Asp	Val	Glu	Thr	Val	Lys	Lys	Leu	Cys	Thr	Val	565	570	575
Gln	Ser	Val	Asn	Cys	Arg	Asp	Ile	Glu	Gly	Arg	Gln	Ser	Thr	Pro	Leu	580	585	590
His	Phe	Ala	Ala	Gly	Tyr	Asn	Arg	Val	Ser	Val	Val	Glu	Tyr	Leu	Leu	595	600	605
Gln	His	Gly	Ala	Asp	Val	His	Ala	Lys	Asp	Lys	Gly	Gly	Leu	Val	Pro	610	615	620
Leu	His	Asn	Ala	Cys	Ser	Tyr	Gly	His	Tyr	Glu	Val	Ala	Glu	Leu	Leu	625	630	635
Val	Lys	His	Gly	Ala	Val	Val	Asn	Val	Ala	Asp	Leu	Trp	Lys	Phe	Thr	645	650	655
Pro	Leu	His	Glu	Ala	Ala	Ala	Lys	Gly	Lys	Tyr	Glu	Ile	Cys	Lys	Leu	660	665	670
Leu	Leu	Gln	His	Gly	Ala	Asp	Pro	Thr	Lys	Lys	Asn	Arg	Asp	Gly	Asn	675	680	685
Thr	Pro	Leu	Asp	Leu	Val	Lys	Asp	Gly	Asp	Thr	Asp	Ile	Gln	Asp	Leu	690	695	700
Leu	Arg	Gly	Asp	Ala	Ala	Leu	Leu	Asp	Ala	Ala	Lys	Lys	Gly	Cys	Leu	705	710	715
Ala	Arg	Val	Lys	Lys	Leu	Ser	Ser	Pro	Asp	Asn	Val	Asn	Cys	Arg	Asp	725	730	735

Thr Gln Gly Arg His Ser Thr Pro Leu His Leu Ala Ala Gly Tyr Asn
740 745 750

Asn Leu Glu Val Ala Glu Tyr Leu Leu Gln His Gly Ala Asp Val Asn
755 760 765

Ala Gln Asp Lys Gly Gly Leu Ile Pro Leu His Asn Ala Ala Ser Tyr
770 775 780

Gly His Val Asp Val Ala Ala Leu Leu Ile Lys Tyr Asn Ala Cys Val
785 790 795 800

Asn Ala Thr Asp Lys Trp Ala Phe Thr Pro Leu His Glu Ala Ala Gln
805 810 815

Lys Gly Arg Thr Gln Leu Cys Ala Leu Leu Leu Ala His Gly Ala Asp
820 825 830

Pro Thr Leu Lys Asn Gln Glu Gly Gln Thr Pro Leu Asp Leu Val Ser
835 840 845

Ala Asp Asp Val Ser Ala Leu Leu Thr Ala Ala Met Pro Pro Ser Ala
850 855 860

Leu Pro Ser Cys Tyr Lys Pro Gln Val Leu Asn Gly Val Arg Ser Pro
865 870 875 880

Gly Ala Thr Ala Asp Ala Leu Ser Ser Gly Pro Ser Ser Pro Ser Ser
885 890 895

Leu Ser Ala Ala Ser Ser Leu Asp Asn Leu Ser Gly Ser Phe Ser Glu
900 905 910

Leu Ser Ser Val Val Ser Ser Ser Gly Thr Glu Gly Ala Ser Ser Leu
915 920 925

Glu Lys Lys Glu Val Pro Gly Val Asp Phe Ser Ile Thr Gln Phe Val
930 935 940

Arg Asn Leu Gly Leu Glu His Leu Met Asp Ile Phe Glu Arg Glu Gln
945 950 955 960

Ile Thr Leu Asp Val Leu Val Glu Met Gly His Lys Glu Leu Lys Glu
965 970 975

Ile Gly Ile Asn Ala Tyr Gly His Arg His Lys Leu Ile Lys Gly Val
980 985 990

Glu Arg Leu Ile Ser Gly Gln Gln Gly Leu Asn Pro Tyr Leu Thr Leu
995 1000 1005

Asn Thr Ser Gly Ser Gly Thr Ile Leu Ile Asp Leu Ser Pro Asp
1010 1015 1020

Asp Lys Glu Phe Gln Ser Val Glu Glu Glu Met Gln Ser Thr Val
1025 1030 1035

Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn Arg
1040 1045 1050

10050-2054300

Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
1055 1060 1065

Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His
1070 1075 1080

Asn His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val
1085 1090 1095

Asn Ala Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile
1100 1105 1110

Gly Gly Met Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser
1115 1120 1125

Lys Ser Asn Gln Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Val
1130 1135 1140

Gln Phe Thr Lys Thr Asp Leu Val Thr Phe Ala Thr Ala Ala Ala
1145 1150 1155

Leu Leu Pro Gly Asn Leu Gly Lys Val Phe Pro Ala Val Gln Cys
1160 1165 1170

Asn Glu Asn Gly Thr Ser Pro Pro Gly His His Ser Val Thr Gly
1175 1180 1185

Arg Pro Ser Val Asn Gly Leu Ala Leu Ala Glu Tyr Val Ile Tyr
1190 1195 1200

Arg Gly Glu Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Tyr Gln Ile
1205 1210 1215

Met Arg Pro Glu Gly Met Val Asp Gly
1220 1225

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<212> PRT

<213> Homo sapiens

<400> 27

His Ile Gln Lys Gln Lys His Phe Asn Glu Arg Glu Ala Ser Arg Val
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Val Arg Asp Val Ala Ala Ala Leu Asp Phe Leu His Thr Lys Gly Ile
20 25 30

Ala His Arg Asp Leu Lys Pro Glu Asn Ile Leu Cys Glu Ser Pro Glu
35 40 45

Lys Val Ser Pro Val Lys Ile Cys Asp Phe Asp Leu Gly Ser Gly Met
50 55 60

Lys Leu Asn Asn Ser Cys Thr Pro Ile Thr Thr Pro Glu Leu Thr Thr
65 70 75 80

Pro Cys Gly Ser Ala Glu Tyr Met Ala Pro Glu Val Val Glu Val Phe
85 90 95

Thr Asp Gln Ala Thr Phe Tyr Asp Lys Arg Cys Asp Leu Trp Ser Leu
100 105 110

Gly Val Val Leu Tyr Ile Met Leu Ser Gly Tyr Pro Pro Phe Val Gly
115 120 125

His Cys Gly Ala Asp Cys Gly Trp Asp Arg Gly Glu Val Cys Arg Val
130 135 140

Cys Gln Asn Lys Leu Phe Glu Ser Ile Gln Glu Gly Lys Tyr Glu Phe
145 150 155 160

Pro Asp Lys Asp Trp Ala His Ile Ser Ser Glu Ala Lys Asp Leu Ile
165 170 175

Ser Lys Leu Leu Val Arg Asp Ala Lys Gln Lys Leu Ser Ala Ala Gln
180 185 190

Val Leu Gln His Pro Trp Val Gln Gly Gln Ala Pro Glu Lys Gly Leu
195 200 205

Pro Thr Pro Gln Val Leu Gln Arg Asn Ser Ser Thr Met Asp Leu Thr
210 215 220

Leu Phe Ala Ala Glu Ala Ile Ala Leu Asn Arg Gln Leu Ser Gln His
225 230 235 240

Glu Glu Asn Glu Leu Ala Glu Glu Pro Glu Ala Leu Ala Asp Gly Leu
245 250 255

Cys Ser Met Lys Leu Ser Pro Pro Cys Lys Ser Arg Leu Ala Arg Arg
260 265 270

Arg Ala Leu Ala Gln Ala Gly Arg Gly Glu Asn Arg Ser Pro Pro Thr
275 280 285

Ala Leu
290

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Met Asn Gly Asp Asp Ala Phe Ala Arg Arg Pro Thr Val Gly Ala Gln
1 5 10 15

Ile Pro Glu Lys Ile Gln Lys Ala Phe Asp Asp Ile Ala Lys Tyr Phe
20 25 30

Ser Lys Glu Glu Trp Glu Lys Met Lys Ala Ser Glu Lys Ile Phe Tyr
35 40 45

Val Tyr Met Lys Arg Lys Tyr Glu Ala Met Thr Lys Leu Gly Phe Lys
50 55 60

Ala Thr Leu Pro Pro Phe Met Cys Asn Lys Arg Ala Glu Asp Phe Gln

[illegible]

Val	Phe	Gly	Ile	Glu	Leu	Met	Glu	Val	Asp	Pro	Ile	Gly	His	Leu	Tyr
				165				170				175			
Ile	Phe	Ala	Thr	Cys	Leu	Gly	Leu	Ser	Tyr	Asp	Gly	Leu	Leu	Gly	Asp
				180				185				190			
Asn	Gln	Ile	Met	Pro	Lys	Ala	Gly	Leu	Leu	Ile	Ile	Val	Leu	Ala	Ile
				195				200				205			
Ile	Ala	Arg	Glu	Gly	Asp	Cys	Ala	Pro	Glu	Glu	Lys	Ile	Trp	Glu	Glu
				210				215				220			
Leu	Ser	Val	Leu	Glu	Val	Phe	Glu	Gly	Arg	Glu	Asp	Ser	Ile	Leu	Gly
225				230				235				240			
Asp	Pro	Lys	Lys	Leu	Leu	Thr	Gln	His	Phe	Val	Gln	Glu	Asn	Tyr	Leu
				245				250				255			
Glu	Tyr	Arg	Gln	Val	Pro	Gly	Ser	Asp	Pro	Ala	Cys	Tyr	Glu	Phe	Leu
				260				265				270			
Trp	Gly	Pro	Arg	Ala	Leu	Val	Glu	Thr	Ser	Tyr	Val	Lys	Val	Leu	His
				275				280				285			
His	Met	Val	Lys	Ile	Ser	Gly	Gly	Pro	His	Ile	Ser	Tyr	Pro	Pro	Leu
				290				295				300			
His	Glu	Trp	Val	Leu	Arg	Glu	Gly	Glu	Glu						
305				310											
<210>		30													
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<212>		PRT													
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<400>		30													
Met	Gln	Ala	Glu	Gly	Arg	Gly	Thr	Gly	Gly	Ser	Thr	Gly	Asp	Ala	Asp
1				5				10				15			
Gly	Pro	Gly	Gly	Pro	Gly	Ile	Pro	Asp	Gly	Pro	Gly	Gly	Asn	Ala	Gly
				20				25				30			
Gly	Pro	Gly	Glu	Ala	Gly	Ala	Thr	Gly	Gly	Arg	Gly	Pro	Arg	Gly	Ala
				35				40				45			
Gly	Ala	Ala	Arg	Ala	Ser	Gly	Pro	Gly	Gly	Gly	Ala	Pro	Arg	Gly	Pro
				50				55				60			
His	Gly	Gly	Ala	Ala	Ser	Gly	Leu	Asn	Gly	Cys	Cys	Arg	Cys	Gly	Ala
65				70				75				80			
Arg	Gly	Pro	Glu	Ser	Arg	Leu	Leu	Glu	Phe	Tyr	Leu	Ala	Met	Pro	Phe
				85				90				95			
Ala	Thr	Pro	Met	Glu	Ala	Glu	Leu	Ala	Arg	Arg	Ser	Leu	Ala	Gln	Asp
				100				105				110			
Ala	Pro	Pro	Leu	Pro	Val	Pro	Gly	Val	Leu	Leu	Lys	Glu	Phe	Thr	Val
				115				120				125			

Ser	Gly	Asn	Ile	Leu	Thr	Ile	Arg	Leu	Thr	Ala	Ala	Asp	His	Arg	Gln
130						135				140					
Leu	Gln	Leu	Ser	Ile	Ser	Ser	Cys	Leu	Gln	Gln	Leu	Ser	Leu	Leu	Met
145					150					155					160
Trp	Ile	Thr	Gln	Cys	Phe	Leu	Pro	Val	Phe	Leu	Ala	Gln	Pro	Pro	Ser
				165					170					175	
Gly	Gln	Arg	Arg												
			180												

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